

REMARKS

Claims 14-20 are present in this application. Claim 21 has been canceled. Claims 14, 15, 16, and 20 are independent.

Claim Rejection – Claim 14

Claim 14 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,440,401 (Parulski). Claim 14 has been amended to clarify the context of the claimed invention, comparable to language recited in claim 16. Applicants request reconsideration of the rejection based on the clarifications made to the claim and the following remarks.

An aspect of the present invention generally relates to a storage type communication device for use in a host center, which is intended to control storing video information in a center storage and reproducing the video information at each terminal from the host center (present specification at page 2, lines 5-9). The storage type communication device distributes coded video data to terminals (1-n) connected by a communication channel of a communication network (10) (present specification at page 15, lines 18-22; see Fig. 4). The method includes selecting the video data requested by a terminal (present specification at page 16, lines 19-26), and transmitting the selected video data over the communication channel to the requesting terminal (present specification at page 17, lines 2-3).

As an example, the present video storage and communication device can accommodate a terminal having a low capability of decoding video data alleviating the need for the requesting

terminal to control data reproduction (see present specification at page 19, line 22, to page 20, line 6), as well as capable of providing data necessary for rapid-feed reproduction.

The Office Action relies on Parulski's Fig. 2 and associated description to teach elements of claim 14. Parulski discloses recoding low resolution images and high resolution images onto a recording medium, then recovering high resolution images using the low resolution images as an index.

Applicants submit that Parulski fails to teach at least the claimed steps of "selecting" video data in accordance with a request from a terminal and "transmitting" selected first coded video data or second coded video data over the communication channel to the requesting terminal, as recited in claim 14.

Furthermore, because Parulski's low resolution images are used as an index to corresponding high resolution images, Applicants submit that Parulski does not teach or suggest "wherein the stored first coded data and the stored second coded data are separate from and independent of one another." For example, Parulski discloses that, "Each low resolution image within file 31 has an identification field referencing a respective one of files 32-1 ... 32-N," the high resolution image files (col. 4, lines 40-42).

Applicants request that the rejection be reconsidered and withdrawn.

Claim Rejections – Claim 15

Claim 15 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,440,401 (Parulski). Claim 15 has been rejected under 35 U.S.C. § 102(e) as being anticipated by

U.S. Patent 5,594,736 (Tatsumi). Claim 15 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,897,219 (Yoo). Claim 15 has been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,418,658 (Kwon).

Claim 15 has been amended to clarify the intended meaning of the term “arbitrary interval.”

In the section, “Response to Arguments”, the Office Action presents a further argument that, “It is noted that Parulski teaches each frame for the coded data is re-encoded to form a frame of re-encoded data” and “It is clear that the re-encoded image frame is replacing frame of coded image at a arbitrary interval (the interval that a number of frames is generated).” A similar statement is made for each of the rejections of claim 15. It appears from this argument that the claimed “arbitrary interval” has not been interpreted as Applicants had intended. It appears that the claim is being unintentionally interpreted as though the number of frames of the re-encoded video data constitutes an arbitrary interval. Thus, claim 15 has been amended to clarify that “arbitrary intervals” pertain to intervals in the coded video data in which frames of the coded video data are replaced with frames of the re-encoded video data.

Applicants submit that Parulski, Tatsumi, Yoo, and Kwon fail to teach this feature of the claimed invention.

Furthermore, claim 15 is directed to a method for storing coded video data (see Figs. 3 and 9-13). According to the present specification, the storage control portion 43 determines which coded video data – intraframely coded video data (output of the specifically reproducible video generating portion 42) or interframely coded video data (output of the receiving portion 41) is transferred to the video storage portion 44 according to an instruction given by the communication control portion 45

(Step 4). Thus, claim 15 recites, “storing in said storage unit the received coded video data or the re-encoded video data.”

Parulski, on the other hand, discloses storing both low resolution images and high resolution images. Thus, Applicants submit that Parulski fails to teach the claimed “storing” step.

Further with respect to Tatsumi, the Office Action relies on Tatsumi’s Figs. 22 and 23, and associated description on column 20, lines 5-20, for teaching elements of claim 15. Tatsumi discloses intra-frame coding of the initial screen in storing image data in order to avoid having to perform inter-frame predictive coding of video data (col. 20, lines 40-52). Thus, similar to the case in Parulski, Tatsumi does not appear to teach storing either the received coded data or the re-encoded video data in a storage unit.

Further with respect to Yoo, the Office Action appears to generally rely on Yoo’s Figs. 5 and 6 for teaching the feature that the re-encoded video data frames replace frames of the received coded data frames at an arbitrary interval. To the contrary, Yoo’s encoder 213 in Fig. 6 periodically appends recorded re-encoded video data (see paragraph bridging columns 4 and 5), not “replacing” frames as recited in the claim.

Furthermore, Yoo discloses that the decoding instruction information inserted into the header instructs “no decoding” in the playback process (column 5, lines 9-21). Thus, a re-encoded frame is not a frame replaced with the input frame.

Thus, for these additional reasons, Applicants submit that Yoo fails to teach or suggest the claimed “replacing” step.

Further with respect to Kwon, Kwon discloses a recording/reproducing apparatus that

records only a signal coded in the intraframe mode. Thus, Applicants submit that Kwon fails to teach or suggest at least the claimed “receiving coded video data over the communication channel” and “storing in said storage unit the received coded video data or the re-encoded video data.”

Accordingly, Applicants request that the rejections of claim 15 be reconsidered and withdrawn.

Claim Rejection – Claims 16, 17, 19

Claims 16, 17, and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo in view of U.S. Patent 5,371,602 (Tsuboi). Claim 16 has been amended to clarify the intended function of the claimed “video-reproduction control portion.” Applicants request reconsideration of the rejection based on amended claim 16.

An aspect of the present invention is that a reproduction control portion 56a controls a calling interval of the video frames from the video storage portion 54 and effects the reproduction selector switch 56b to select the necessity or non-necessity of newly encoding the read-out video data (present specification at page 31, lines 6-11).

Thus, claim 16 recites that, “a video-reproduction control portion for selecting from the directly accessible storage to read the first coded video data stored in the video storage portion as it is, or to direct the video generating portion to generate the second coded video data.” In other words, claim 16 relates to a video-reproduction control portion that generates second coded video data when the first coded video data is not selected. It appears that this aspect of the claimed invention has not been realized in rejecting claim 16. Claim 16 has been amended to clarify the

intended function of the claimed video-reproduction control portion.

The Office Action states that the claimed video-reproduction control portion is taught by Yoo at column 3, line 60 to column 4, line 34. The Office Action relies on Tsuboi for teaching a directly accessible medium.

According to the description at column 4 of Yoo, inputted compressed video data is delayed by the buffer 211 and then applied to multiplexer 215. The inputted compressed video data is also decoded by decoder 212 and applied to encoder 213. The multiplexer selects between output data from the buffer 211 and output data from the encoder 213.

Thus, unlike the present invention, Yoo teaches a data conversion unit that selects data that has been subject to re-encoding. An aspect of the present invention is the selection of direct video re-encoding if second coded video data is requested by a terminal, otherwise re-encoding is not carried out and first coded video data is read from directly accessible storage.

These same arguments apply as well to dependent claims 17 and 19. Accordingly, Applicants request that the rejection be reconsidered and withdrawn.

Claim Rejection – Claim 20

Claim 20 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoo in view of U.S. Patent 5,371,602 (Tsuboi). Claim 20 has been amended to clarify the intended meaning of “generating a second coded video data different from the first coded video data.” Applicants respectfully request reconsideration of the rejection based on claim 20 as amended.

An aspect of the present invention is that in re-encoding, frames are read-out from the

storage portion at a certain interval (i.e., the number of frames is reduced; present specification at page 29, lines 14-28) and data amount per frame is reduced by interframe coding (present specification at page 31, lines 15 to 26).

Thus, claim 20 as amended recites, “a video generating portion for generating a second coded video data to have a reduced amount of data or a smaller number of video frames than that of the first coded video data by re-encoding the first coded video data stored in the video storage portion.”

In addition, similar to claim 16, discussed above, claim 20 also recites “a video output control portion for selecting from the directly accessible storage to output the first coded video data stored in the video storage portion as it is, or to direct the video generating portion to generate the second coded video data.”

Applicants submit that Yoo fails to teach or suggest the claimed video generating portion generating a second coded video data to have a reduced amount of data or a smaller number of video frames than that of the first coded video data. Furthermore, Applicants submit that similar to the above argument for claim 16, unlike the present invention, Yoo teaches a data conversion unit that selects data that has been subject to re-encoding. An aspect of the present invention is the selection to direct video generation, e.g., re-encoding, if second coded video data is requested by a terminal, otherwise generation is not carried out and first coded video data is read directly from accessible storage.

Accordingly, Applicants request that the rejection be reconsidered and withdrawn.

Conclusion


In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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